**Compiler Design Lab**

**Assignment-8**

**Implementation of code optimization techniques**

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**Code:**

#include<stdio.h>

#include<string.h>

#include<stdlib.h>

void main**()**

**{**

FILE **\***fp**;**

fp**=**fopen**(**"input.txt"**,**"r"**);**

**while(!**feof**(**fp**))**

**{**

char st**[**100**];**

fscanf**(**fp**,**" %[^\n]"**,**st**);**

**if(!**feof**(**fp**))**

**{**

**if(**st**[**3**]==**'+'**)**

**{**

**if(**st**[**2**]==**'0'**||**st**[**4**]==**'0'**)**

**{**

printf**(**"Line Eliminated\n"**);**

**}**

**else**

printf**(**"%s\n"**,**st**);**

**}**

**else** **if(**st**[**3**]==**'\*'**)**

**{**

**if(**st**[**2**]==**'1'**||**st**[**4**]==**'1'**)**

**{**

printf**(**"Line Eliminated\n"**);**

**}**

**else**

printf**(**"%s\n"**,**st**);**

**}**

**else** **if(**st**[**3**]==**'-'**)**

**{**

**if(**st**[**4**]==**'0'**)**

**{**

printf**(**"Line Eliminated\n"**);**

**}**

**else** **if(**st**[**2**]==**'0'**)**

**{**

sprintf**(**st**,**"%c%c%c%c"**,**st**[**0**],**st**[**1**],**st**[**3**],**st**[**4**]);**

printf**(**"%s\n"**,**st**);**

**}**

**else**

printf**(**"%s\n"**,**st**);**

**}**

**else** **if(**st**[**3**]==**'/'**)**

**{**

**if(**st**[**4**]==**'1'**)**

**{**

printf**(**"Line Eliminated\n"**);**

**}**

**else** **if(**st**[**2**]==**'0'**)**

**{**

sprintf**(**st**,**"%c%c0"**,**st**[**0**],**st**[**1**]);**

printf**(**"%s\n"**,**st**);**

**}**

**else**

printf**(**"%s\n"**,**st**);**

**}**

**else** **if(**st**[**2**]==**'p' **&&** st**[**3**]==**'o' **&&** st**[**4**]==**'w'**)**

**{**

sprintf**(**st**,**"%c%c%c\*%c"**,**st**[**0**],**st**[**1**],**st**[**6**],**st**[**6**]);**

printf**(**"%s\n"**,**st**);**

**}**

**}**

**}**

fclose**(**fp**);**

**}**

**input.txt:**

a=a+0

i=i+1

i=i\*4

a=a\*1

a=a-0

a=0-a

a=a/1

a=0/a

a=pow(3,2)

**Output:**

